REMARKS

Claims 1, 4, 7, 14 and new claims 57 and 58 are pending. The support for the amendments and new claims are found in the published specification as follows: Claim 1: canceled claim 6; new claim 57:[0146]; and new claim 58: [0147]. No new matter is added.

Claims 1, 4 – 7 and 13 – 14 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. (Office Action p.3)

The rejection notes that host cell is defined in the specification at page 23, "As a host cell into which the first vector and the second vector are introduced, a host cell in which the recombination of the both vectors is carried out can be used." Accordingly, the claims have been amended to add an additional step reciting introduction of the first vector and second vector into the host cell so that recombination can occur.

Based on this amendment, the indefiniteness rejection should be overcome.

Claims 1, 4 – 6 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mejia et al. (Genomics 70(2): 165 – 170, 2000) in view of Perkins et al. (US 2003/0119104A1), Waye et al. (Mol and Cell. Biol. 6(9):3156-3165, 1986) and Ikeno et al. (Human Mol. Gen 3(8):1245 – 1257, 1994). (Office Action, p. 4).

See response below which addresses this rejection.

Claims 1 and 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mejia et al. (as above) in view of Waye et al. (as above), Ikeno et al. (as above) and Perkins et al. (as above) as applied to claims 1, 4 – 6 and 13 and further in view of Bokkelen et al. (US Patent 5,695,967). (Office Action, p. 8).

See response below which addresses this rejection.

Claims 1 and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mejia et al. (as above) in view of Waye et al. (as above), Ikeno et al. (as above), Perkins et al. (as above) and Bokkelen et al. (as above) as applied to claims 1, 4 – 7 and 13, and further in view of, and further in view of Cooke et al. (WO 00/18941). (Office Action, p. 9).

Regarding these rejections, the rejections cite as the primary reference the Mejia et al reference, in combination with the Perkins, Waye, Ikeno and Bokkelen references. As all of these rejections above depend on the Mejia reference as the primary reference, these rejections may be addressed together in the interest of compact prosecution.

Claim 1 has been amended to incorporate the subject matter of claim 6, and cancelling claim 5. As indicated by the rejection at page 5 of the Office Action, neither Meijia nor Perkins teach the alpha satellite DNA from the human centromere to comprise the sequence of SEQ ID NO: 1, ***where the mammalian centromere sequence comprises a 11mer repeat unit obtained from a human chromosome 21.*** The rejections allege that, absent evidence to the contrary, nothing non-obvious is seen with substituting a mammalian centromere sequence comprising an 11mer repeat unit obtained from a human chromosome 17, as taught in the Waye reference, with a mammalian centromere sequence comprising an 11mer repeat unit obtained from a human chromosome 21, as presently claimed.

In response, we respectfully note the disclosure on in [0146] and Example 1 where a 21 – I alphoid fragment is used, where a preference for an alpha satellite region from human chromosome 21 is taught and is ***shown not to be a functional equivalent***:

> It is preferably to use a sequence derived from an alpha satellite region of a human chromosome 21. The alpha satellite region of the human chromosome 21 has been investigated in detail and has a region called α21-I. The α21-I region includes a sequence called an alphoid 11mer repeat unit. This repeat unit includes a plurality of CENP-B boxes consisting of 5'-NTTCGTTGGAAACGGGA-3' (SEQ ID NO: 2) at regular intervals (Ikeno et al. Human Mol. Genet., 3, 1245-1247, 1994).

Based on the showing in the specification, claim 1 as now amended as well as claims dependant thereon and new claims 57 and 58 are nowhere disclosed and therefore not obvious.

Neither the Mejia et al. nor the Perkins et al. references, in combination with the other cited art, teach a mammalian centromere sequence as claimed.

As discussed above, all of the rejections under 35 USC §103 rely on the Mejia reference. No combination of Mejia with any of the secondary references cited expressly or inherently

teaches the invention as claimed. None of the Waye et al., Ikeno et al., Perkins et. al. Bokkelen or Cooke et al. references cures the defects of the Mejia reference and teaches a mammalian centromere sequence as claimed.

Based on the amendment, the rejections above fail to create a *prima facie* rejection of obviousness. It is respectfully requested that the rejection be reconsidered and withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

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Respectfully submitted,

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